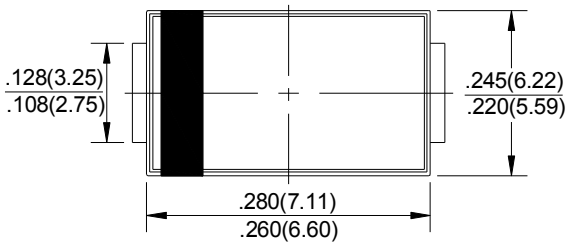
CURRENT 6.0 Ampere
VOLTAGE RANG 50 to 1000 Volts

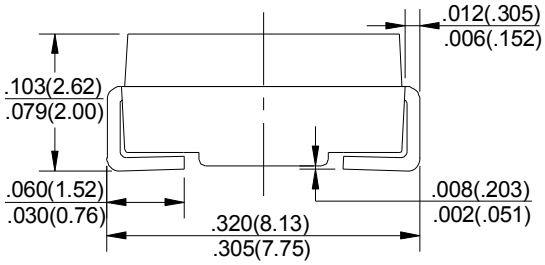
# RS6AC THRU RS6MC

## Features

- Glass Passivated Die Construction
- Fast Recovery Time for High Efficiency
- Low Forward Voltage Drop and High Current Capability
- Ideally Suited for Automatic Assembly
- Plastic Material: UL Flammability Classification Rating 94V-0

## DO-214AB/SMC




**Dimensions in inches and (millimeters)**

## Mechanical Data

- Case: SMC(DO-214AB),Molded Plastic
- Terminals: Solder Plated Terminal - Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.21 grams (approx.)

## Maximum Ratings and Electrical Characteristics

@ $T_A$ = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Characteristic | Symbol | RS6A | RS6B | RS6D | RS6G | RS6J | RS6K | RS6M | Unit |
|---|---|---|---|---|---|---|---|---|---|
| Maximum repetitive peak reverse voltage | $V_{RRM}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS voltage | $V_{RMS}$ | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC blocking voltage | $V_{DC}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum average forward rectified current at $T_L$=75℃ | $I_{(AV)}$ | 6.0 | | | | | | | A |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | $I_{FSM}$ | 250 | | | | | | | A |
| Maximum instantaneous forward voltage at 5.0A | $V_F$ | 1.3 | | | | | | | V |
| Maximum DC reverse current $T_A$=25℃<br>at rated DC blocking voltage $T_A$=100℃ | $I_R$ | 5.0<br>100.0 | | | | | | | μA |
| Maximum reverse recovery time (NOTE 1) | $t_{rr}$ | 150 | | | | 250 | 500 | | ns |
| Typical junction capacitance (NOTE 2) | $C_J$ | 78.0 | | | | | | | pF |
| Typical thermal resistance (NOTE 3) | $R_{\theta JA}$ | 50.0 | | | | | | | °C/W |
| Operating junction and storage temperature range | $T_J$,$T_{STG}$ | -65 to +150 | | | | | | | °C |

**Note:**1.Reverse recovery condition $I_F$=0.5A,$I_R$=1.0A,Irr=0.25A
2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
3.P.C.B. mounted with 0.2x0.2″(5.0x5.0mm) copper pad areas

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# RS6AC THRU RS6MC

## RATING AND CHRACTERISTIC CURVES RS6AC Thru RS6MC

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

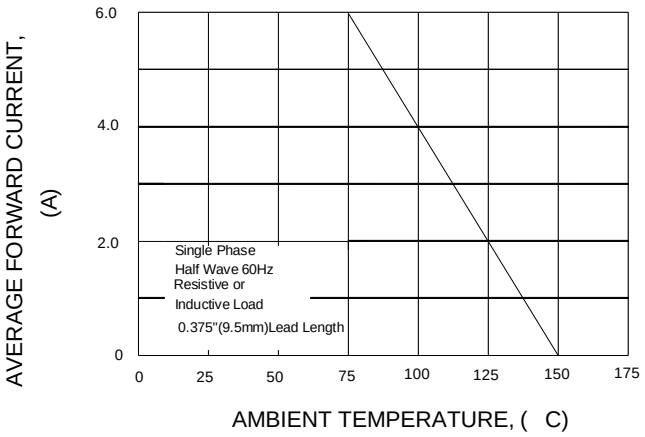


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

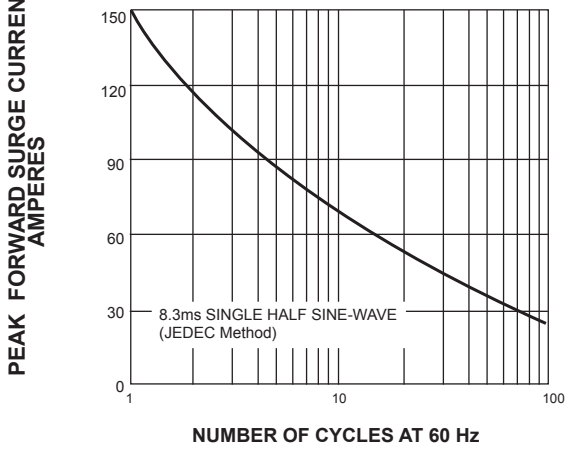


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

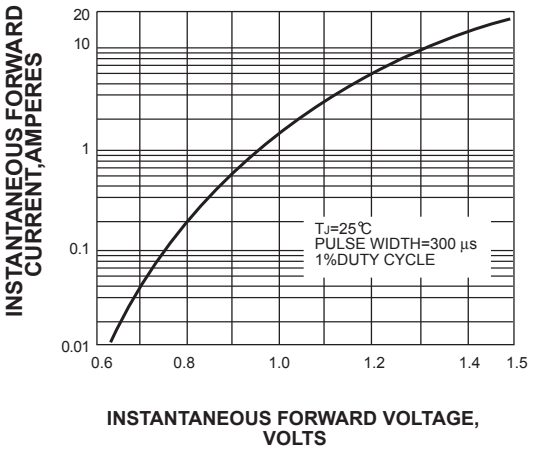


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

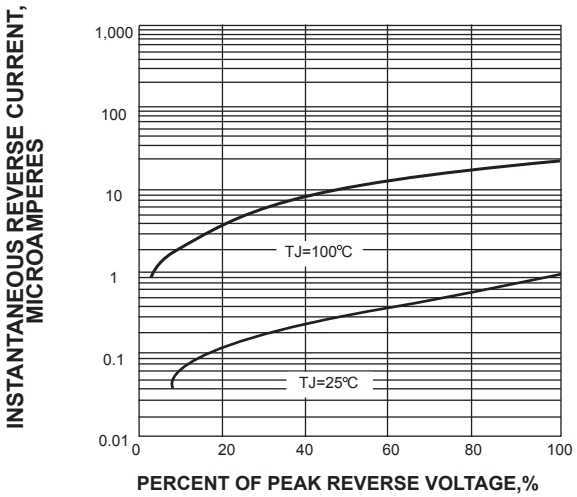


FIG. 5-TYPICAL TRANSIENT THERMAL IMPEDANCE

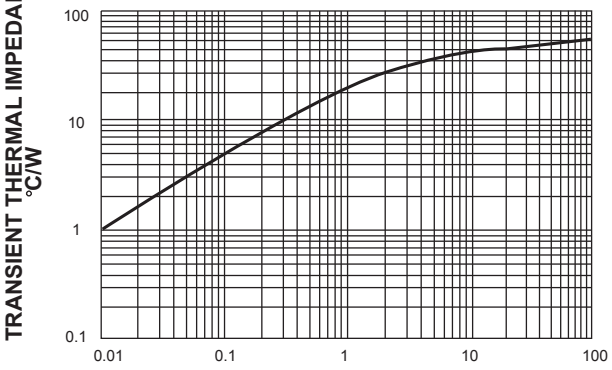


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE